AMENDMENTS TO THE CLAIMS

Upon entry of this amendment, the following listing of claims will replace all prior versions and listings of claims in the pending application.

IN THE CLAIMS

Please amend the pending claims as follows:

1. (Original) In a simulation environment, a method for controlling collection of data generated by a dynamic system model, comprising:

providing the dynamic system model;

providing a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the dynamic system model;

activating the dynamic system model, thereby generating data; and

synchronizing data collection by the two or more data collection modules using the control system.

2. (Original) The method of claim 1, further comprising executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the dynamic system model continues to execute and the data continues to be collected.

3. (Original) The method of claim 2, further comprising a user reviewing the display of data collected while data continues to be collected without updating the display.

4. (Original) The method of claim 2, further comprising a user manipulating the display of data collected while data continues to be collected.

5. (Original) The method of claim 1, further comprising executing a suspend function to pause collection of data while the dynamic system continues to operate.

6. (Original) The method of claim 1, further comprising providing an interface having a communication port for communicating with each of the two or more data modules.

7. (Original) The method of claim 1, further comprising directing a review of data collected by the two or more data collection instruments by utilizing a review function.

8. (Original) The method of claim 1, further comprising a user defining data history parameters utilizing a data history function.

9. (Original) The method of claim 8, wherein the data history parameters comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes, and data formats.

10. (Original) The method of claim 1, further comprising directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function.

11. (Original) The method of claim 1, further comprising a user utilizing a scroll function to scroll through previously collected data while the dynamic system model is operating.

12. (Original) The method of claim 1, further comprising providing a time tracking function that directs a graphical display indication of a time history of data collected.

13. (Original) The method of claim 1, wherein synchronizing the two or more data modules comprises conveying to selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules by utilizing a broadcasting function.

14. (Original) The method of claim 1, further comprising utilizing an event based trigger to initiate a data module action.

15. (Original) The method of claim 1, wherein the simulation environment comprises at least one of a graphical, textual, data flow, time based, and event based environments.

16. (Original) The method of claim 1, wherein the two or more data modules are virtually formed using at least one of MATLAB, JAVA, C++, object-oriented code, and computer code.

17. (Original) The method of claim 1, wherein the two or more data modules provide displays in the form of at least one of textual, graphical, multi-dimensional, oscilloscope, and spectrum analyzer.

18. (Original) The method of claim 1, wherein the control system is a separate system from the dynamic system.

19. (Original) In a simulation environment, a method for controlling collection of data generated by a model of a dynamic system, comprising:

providing the model of the dynamic system;

providing a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the model of the dynamic system;

activating the model of the dynamic system, thereby generating data;

synchronizing data collection by the two or more data collection modules using the control system;

and

executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the model dynamic system continues to execute and the data continues to be collected.

20. (Original) The method of claim 19, further comprising a user reviewing the display of data collected while data continues to be collected without updating the display.

21. (Original) The method of claim 19, further comprising a user manipulating the display of data collected while data continues to be collected.

22. (Original) The method of claim 19, further comprising executing a suspend function to pause collection of data while the dynamic system continues to operate.

23. (Original) The method of claim 19, further comprising providing an interface having a communication port for communicating with each of the two or more data modules.

24. (Original) The method of claim 19, further comprising directing a review of data collected by the two or more data collection instruments by utilizing a review function.

25. (Original) The method of claim 19, further comprising a user defining data history parameters utilizing a data history function.

26. (Original) The method of claim 25, wherein the data history parameters comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes, and data formats.

27. (Original) The method of claim 19, further comprising directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function.

28. (Original) The method of claim 19, further comprising a user utilizing a scroll function to scroll through previously collected data while the dynamic system model is operating.

29. (Original) The method of claim 19, further comprising providing a time tracking function that directs a graphical display indication of a time history of data collected.

30. (Original) The method of claim 19, wherein synchronizing the two or more data modules comprises conveying to selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules by utilizing a broadcasting function.

31. (Original) The method of claim 19, further comprising utilizing an event based trigger to initiate a data module action.

32. (Original) The method of claim 19, wherein the simulation environment comprises at least one of a graphical, textual, data flow, time based, and event based environments.

33. (Original) The method of claim 19, wherein the two or more data modules are virtually formed using at least one of MATLAB, JAVA, C++, object-oriented code, and computer code.

34. (Original) The method of claim 19, wherein the two or more data modules provide displays in the form of at least one of textual, graphical, multi-dimensional, oscilloscope, and spectrum analyzer.

35. (Original) The method of claim 19, wherein the control system is a separate system from the dynamic system.

36. (Original) In a simulation environment, a method for controlling collection of data generated by a model of a dynamic system, comprising:

providing the model of the dynamic system;

providing a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the model of the dynamic system;

activating the model of the dynamic system, thereby generating data;

synchronizing data collection by the two or more data collection modules using the control system;

and

executing a suspend function to pause collection of data while the dynamic system continues to operate.

37. (Original) The method of claim 36, further comprising executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the dynamic system model continues to execute and the data continues to be collected

38. (Original) The method of claim 37, further comprising a user reviewing the display of data collected while data continues to be collected without updating the display.

39. (Original) The method of claim 37, further comprising a user manipulating the display of data collected while data continues to be collected.

40. (Original) The method of claim 36, further comprising providing an interface having a communication port for communicating with each of the two or more data modules.

41. (Original) The method of claim 36, further comprising directing a review of data collected by the two or more data collection instruments by utilizing a review function.

42. (Original) The method of claim 36, further comprising a user defining data history parameters utilizing a data history function.

43. (Original) The method of claim 42, wherein the data history parameters comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes, and data formats.

44. (Original) The method of claim 36, further comprising directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function.

45. (Original) The method of claim 36, further comprising a user utilizing a scroll function to scroll through previously collected data while the dynamic system model is operating.

46. (Original) The method of claim 36, further comprising providing a time tracking function that directs a graphical display indication of a time history of data collected.

47. (Original) The method of claim 36, wherein synchronizing the two or more data modules comprises conveying to selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules by utilizing a broadcasting function.

48. (Original) The method of claim 36, further comprising utilizing an event based trigger to initiate a data module action.

49. (Original) The method of claim 36, wherein the simulation environment comprises at least one of a graphical, textual, data flow, time based, and event based environments.

50. (Original) The method of claim 36, wherein the two or more data modules are virtually formed using at least one of MATLAB, JAVA, C++, object-oriented code, and computer code.

51. (Original) The method of claim 36, wherein the two or more data modules provide displays in the form of at least one of textual, graphical, multi-dimensional, oscilloscope, and spectrum analyzer.

52. (Original) The method of claim 36, wherein the control system is a separate system from the dynamic system.

53. (Original) A method for controlling collection of data generated by a dynamic system, comprising:

providing the dynamic system;

providing a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the dynamic system;

activating the dynamic system, thereby generating data; and

synchronizing data collection by the two or more data collection modules using the control system.

54. (Original) The method of claim 53, further comprising executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the dynamic system continues to execute and the data continues to be collected

55. (Original) The method of claim 54, further comprising a user reviewing the display of data collected while data continues to be collected without updating the display.

56. (Original) The method of claim 54, further comprising a user manipulating the display of data collected while data continues to be collected.

57. (Original) The method of claim 53, further comprising executing a suspend function to pause collection of data while the dynamic system continues to operate.

58. (Original) The method of claim 53, further comprising providing an interface having a communication port for communicating with each of the two or more data modules.

59. (Original) The method of claim 53, further comprising directing a review of data collected by the two or more data collection instruments by utilizing a review function.

60. (Original) The method of claim 53, further comprising a user defining data history parameters utilizing a data history function.

61. (Original) The method of claim 60, wherein the data history parameters comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes, and data formats.

62. (Original) The method of claim 53, further comprising directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function.

63. (Original) The method of claim 53, further comprising a user utilizing a scroll function to scroll through previously collected data while the dynamic system is operating.

64. (Original) The method of claim 53, further comprising providing a time tracking function that directs a graphical display indication of a time history of data collected.

65. (Original) The method of claim 53, wherein synchronizing the two or more data modules comprises conveying to selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules by utilizing a broadcasting function.

66. (Original) The method of claim 53, further comprising utilizing an event based trigger to initiate a data module action.

67. (Original) The method of claim 53, wherein the simulation environment comprises at least one of a graphical, textual, data flow, time based, and event based environments.

68. (Original) The method of claim 53, wherein the two or more data modules are virtually formed using at least one of MATLAB, JAVA, C++, object-oriented code, and computer code.

69. (Original) The method of claim 53, wherein the two or more data modules provide displays in the form of at least one of textual, graphical, multi-dimensional, oscilloscope, and spectrum analyzer.

70. (Original) The method of claim 53, wherein the dynamic system is at least one of a virtual system and a physical system.

71. (Original) The method of claim 53, wherein the control system is a separate system from the dynamic system.

72. (Original) In a simulation environment, a system for controlling collection of data generated by a dynamic system model, comprising:

the dynamic system model provided in a simulation application and configured to generate the data; and

a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the dynamic system model;

wherein the data collection by the two or more data collection modules is synchronized using the control system.

73. (Original) In a simulation environment, a system for controlling collection of data generated by a model of a dynamic system, comprising:

the dynamic system model provided in a simulation application and configured to generate the data; and

a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the dynamic system model;

wherein the data collection by the two or more data collection modules is synchronized using the control system;

and

wherein a snapshot function is provided that directs at least one of the two or more data modules to freeze a display of data collected while the model dynamic system continues to execute and the data continues to be collected.

74. (Original) In a simulation environment, a system for controlling collection of data generated by a model of a dynamic system, comprising:

the dynamic system model provided in a simulation application and configured to generate the data; and

a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the dynamic system model;

wherein the data collection by the two or more data collection modules is synchronized using the control system;

and

wherein a suspend function is provided to pause collection of data while the dynamic system continues to operate.

75. (Original) A system for controlling collection of data generated by a dynamic system, comprising:

the dynamic system provided in a simulation application and configured to generate the data; and

a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the dynamic system;

wherein the data collection by the two or more data collection modules is synchronized using the control system.

Please enter the following new claims 76-93:

76. (New) A medium for use in a simulation environment on an electronic device, the medium holding instructions executable using the electronic device for performing a method of controlling collection of data generated by a dynamic system model, the method comprising:

providing the dynamic system model;

providing a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the dynamic system model;

activating the dynamic system model, thereby generating data; and

synchronizing data collection by the two or more data collection modules using the control system.

77. (New) The medium of claim 76, the method further comprising executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the dynamic system model continues to execute and the data continues to be collected.

78. (New) The medium of claim 2, the method further comprising a user reviewing the display of data collected while data continues to be collected without updating the display.

79. (New) The medium of claim 2, the method further comprising a user manipulating the display of data collected while data continues to be collected.

80. (New) The medium of claim 76, the method further comprising executing a suspend function to pause collection of data while the dynamic system continues to operate.

81. (New) The medium of claim 76, the method further comprising providing an interface having a communication port for communicating with each of the two or more data modules.

82. (New) The medium of claim 76, the method further comprising directing a review of data collected by the two or more data collection instruments by utilizing a review function.

83. (New) The medium of claim 76, the method further comprising a user defining data history parameters utilizing a data history function.

84. (New) The medium of claim 8, wherein the data history parameters comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes, and data formats.

85. (New) The medium of claim 76, the method further comprising directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function.

86. (New) The medium of claim 76, the method further comprising a user utilizing a scroll function to scroll through previously collected data while the dynamic system model is operating.

87. (New) The medium of claim 76, the method further comprising providing a time tracking function that directs a graphical display indication of a time history of data collected.

88. (New) The medium of claim 76, wherein synchronizing the two or more data modules comprises conveying to selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules by utilizing a broadcasting function.

89. (New) The medium of claim 76, the method further comprising utilizing an event based trigger to initiate a data module action.

90. (New) The medium of claim 76, wherein the simulation environment comprises at least one of a graphical, textual, data flow, time based, and event based environments.

91. (New) The medium of claim 76, wherein the two or more data modules are virtually formed using at least one of MATLAB, JAVA, C++, object-oriented code, and computer code.

92. (New) The medium of claim 76, wherein the two or more data modules provide displays in the form of at least one of textual, graphical, multi-dimensional, oscilloscope, and spectrum analyzer.

93. (New) The medium of claim 76, wherein the control system is a separate system from the dynamic system.